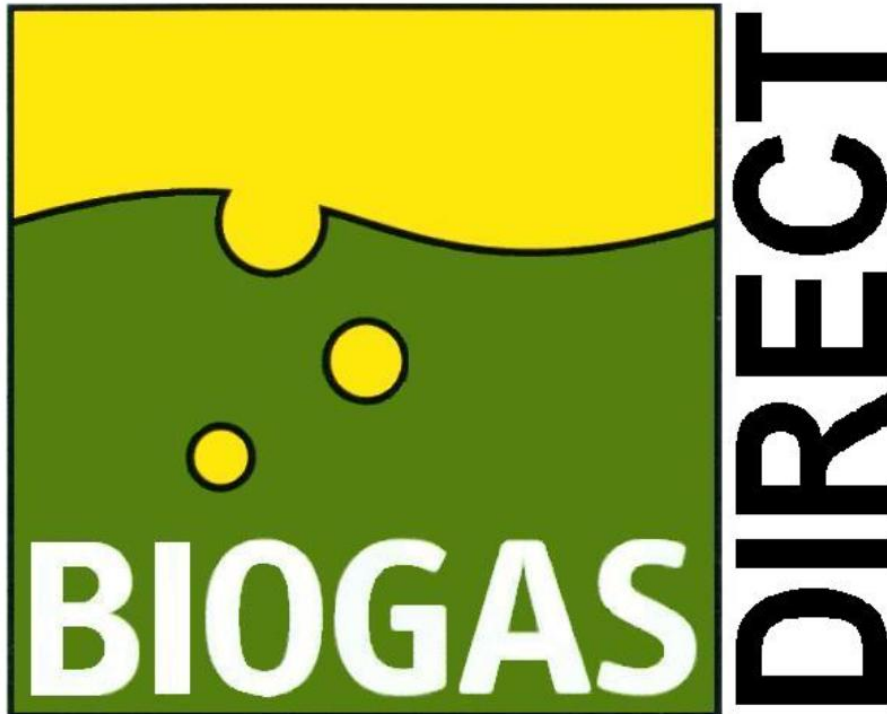
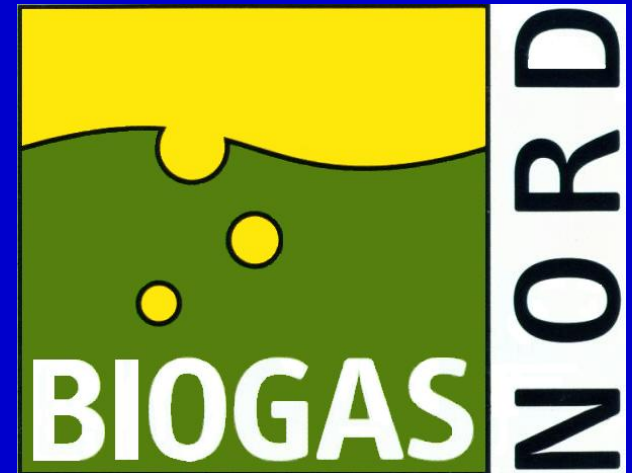


Michael J. Zander CEO - info@biogas-direct.com

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Headquarter USA WI



GERMANY



...about BIOGAS DIRECT LLC

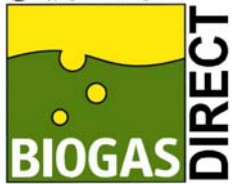
we build BIOGAS PLANTS and CHP(combined heat and power)-SYSTEMS



... from 37 kWh electric = manure from 150 cows to ...

27000 kWh electric = 100.000 cows or 60t corn silage per hour

... more than 100,000,000.00 \$ sales per year

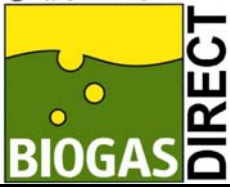


... these should be the goals

1. THE SYSTEM HAS TO BE SIMPLE

2. THE SYSTEM HAS TO WORK

3. THE SYSTEM HAS TO MAKE MONEY



1. THE SYSTEM HAS TO BE SIMPLE

... avoid technology you don't need

... take only the best quality

... have a concept

... have trained people

2. THE SYSTEM HAS TO WORK

... compare systems, references, visit plants

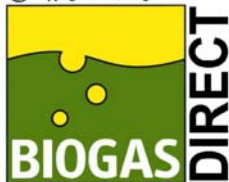
... keep records (visualisation)

... take time to prepare (questionnaire)

... integrate future plans (size)

... be prepared for maintenance (time)

... know the biology (service)



3. THE SYSTEM HAS TO MAKE MONEY

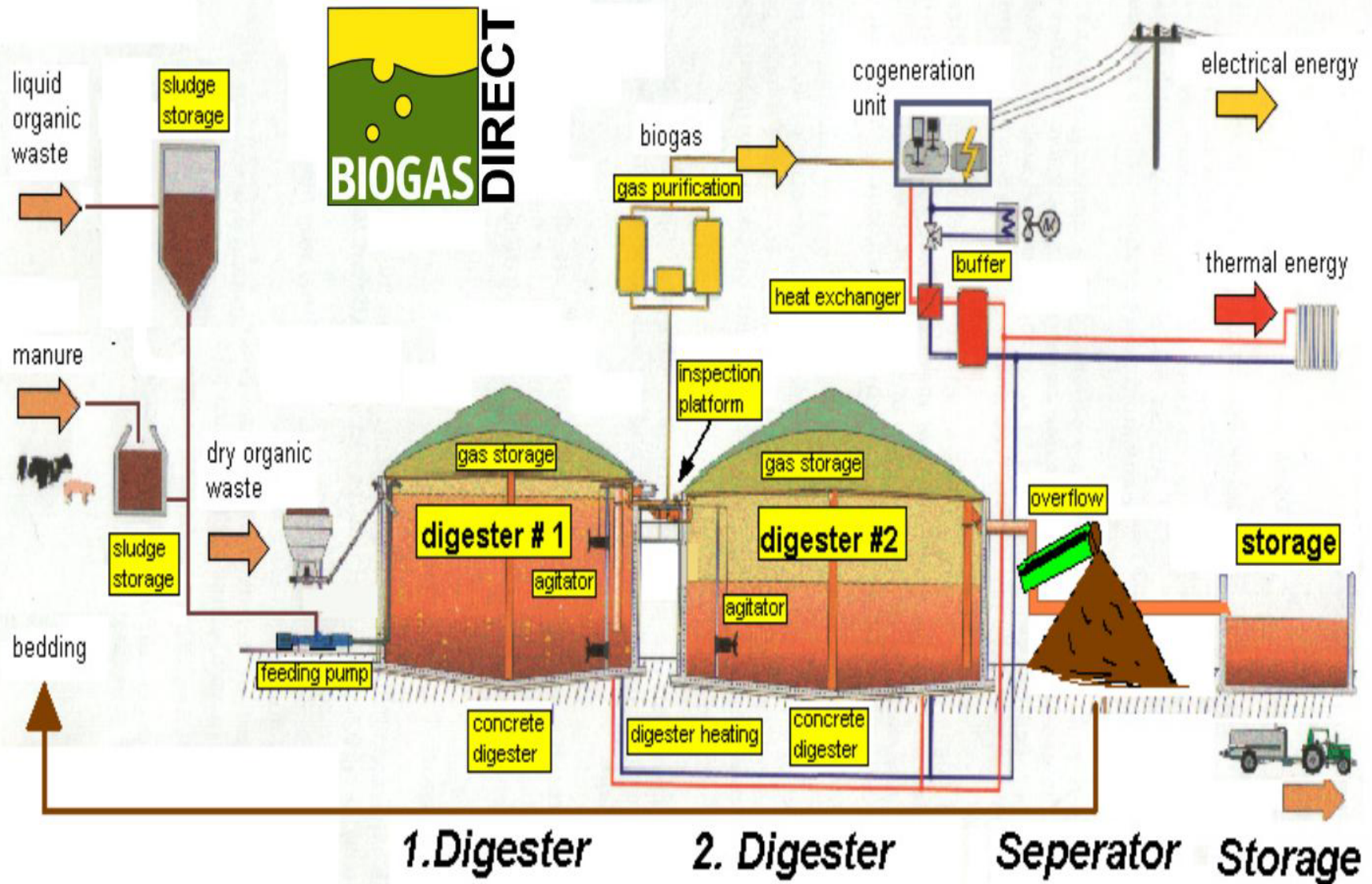
... the money INPUT/OUTPUT balance

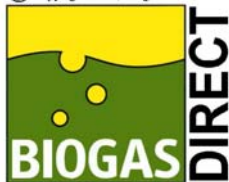
... the energy INPUT/OUTPUT balance

... cheap or efficient ?

... biogas or gas or heat or electricity or bedding ?

Typical Composition of a BIOGAS DIRECT biogas plant





The CHP (combined heat and power) - SYSTEM



turn key fix price

training included

39 % efficiency

8 years / 0.5 cents/kWh

5 days installation



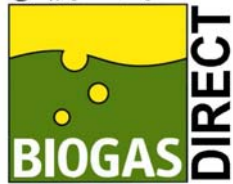
EXAMPLE - THE SITUATION



dairy farm

2.000 dairy cows

= 2.000 X 25 = 50.000 gallons manure/day



Investment for 2000 cow dairy farm



400,000 \$ for 2 concrete tanks 80' diameter

700,000 \$ for BIOGAS PLANT

450,000 \$ for CHP (500 kW)

150,000 \$ for separator incl. building

1,700,000 \$ total investment



yearly costs for BIOGAS PLANT



| | no grant | 10% grant | 25% grant |
|-----------------|----------|-----------|-----------|
| interest 7% | 119,000 | 107,100 | 89,250 |
| maintenance BP | 8,000 | 8,000 | 8,000 |
| maintenance CHP | 20,000 | 20,000 | 20,000 |
| work 2h/day | 14,600 | 14,600 | 14,600 |
| | 161,600 | 147,700 | 131,850 |



profit & return on money

BIOGAS PLANT / 2,000 dairy cows



| | | | |
|---------------------|-----------|-----------|-----------|
| sales elc 7cent/kWh | 292,500 | | |
| savings bedding | 100,000 | | 442,500 |
| sales bedding | 50,000 | | |
| | 161,600 | 147,700 | 131,850 |
| profit/year | 280,900 | 292,800 | 310,650 |
| return on money | 6.1 years | 5.2 years | 4.1 years |



Michael J. Zander ceo (www.biogas-direct.com)

**THANK YOU VERY MUCH AND
HAVE A GREAT DAY**



... see you at Vir Clar Farm (April 26, 2006 12:00-6:30 pm)